BOEM ENVIRONMENTAL STUDIES PROGRAM: Ongoing Study

Region: Pacific

Planning Area(s): Southern California

Title: Southern Sea Otter Range Expansion and Habitat Use and Interaction with Manmade Structures (PC-11-04)

BOEM Information Need(s) to be Addressed: The southern sea otter (*Enhydra lutris nereis*) is exceptionally vulnerable to oil spills. This species is also listed as threatened under the Endangered Species Act. In the past five years, the southern sea otter population has significantly expanded its range down the coast of California into areas of existing oil and gas production. BOEM needs to understand where and how southern sea otters are using habitat near oil and gas facilities in order to calculate risks to otters in environmental analysis of ongoing OCS activities and oil spill response planning. Such information, coupled with ongoing research being done by USGS and funded by BOEM, fingerprinting seep oils, would inform BOEM of the possible source of oil on any otters that potentially become oiled.

Total Cost: $400,000 **Period of Performance:** FY 2011-2014

Conducting Organization: U.S. Geological Survey Western Ecological Research Center

Principal Investigator: Dr. Tim Tinker

BOEM Contact: Greg Sanders

Description:

Background: The southern sea otter was listed as threatened primarily because of its small population size and the risk of oil spills. Since listing, the southern sea otter population has gradually increased its size and range. Approximately 2,800 sea otters now inhabit the coastline from Half Moon Bay to Santa Barbara. Within the past five years, about 100 sea otters have been routinely observed in the Point Conception area, adjacent to active oil and gas facilities and natural oil and gas seeps. Very little is known about their daily activity patterns and habitat use in this area.

Objectives: Research objectives include (1) identification of important sea otter resting and foraging areas adjacent to oil and gas facilities; (2) delineation of movement patterns along the southern California coast; and (3) assessment of sea otter distribution and behavior in the vicinity of natural oil and gas seep areas (e.g., Coal Oil Point, Santa Barbara County).

Methods: Up to 20 sea otters per year will be captured on the southern California coast over a two-year period. Each animal will be implanted with a VHF radio tag and a time- depth-recorder using well established techniques developed by the U.S. Fish and Wildlife Service and the U.S. Geological Survey. Geospatial tags may be considered and used if they are developed and approved for use in sea otters by the time this study is initiated. These movement data would be

correlated to the location of known seeps in the Santa Barbara Channel and correlations to possible oiling estimated.

Tagged animals will be tracked for a two-year period from land and air on a weekly basis with periodic intensive survey periods designed to determine daily movement and activity patterns in relationship to oil and gas facilities and naturally occurring oil seeps. In the third year of the project, some of the tagged sea otters will be recaptured to recover their time-depth-recorders for more detailed analysis of their activity patterns.

Current Status: The first group of sea otters was captured and instrumented in March 2012. A second group of sea otters was captured in March 2013. Sea otters from both groups are currently being tracked as they move up and down the central and southern California coast. Recaptures are expected to begin in Spring 2014 to collect additional data from the instrumented animals.

Final Report Due: August 2014

Publications Completed: None at this time.

Affiliated WWW sites: http://www.werc.usgs.gov/project.aspx?projectid=91

Revised Date: September 30, 2013